THE PLOTTER

CLACKAMAS COMPUTER APPLIED
TRAINING SOCIETY
NEWS LETTER
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VOLUME 12 ** NUMBER 9
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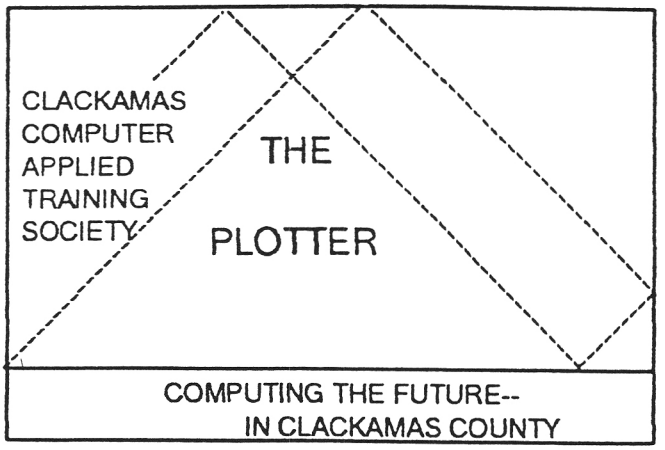
SEPTEMBER 1994



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MEETING

The SEPTEMBER meeting will be:

on: SUN., SEPTEMBER 18, 1994

MEETING 2:00 TO 5:00 P.M.
at: Rod Gowen's home
14784 S. Quail Circle
Oregon City

WHAT YOU WILL FIND IN THIS ISSUE:

MEETING----------PAGE 1
FROM THE EDITOR'S DESK------PAGE 1
COMPUTERS IN SPACE----------PAGE 2
LARKEN LINES----------PAGE 3
A NOVEL CARD----------PAGE 4
PRINTER READY?----------PAGE 5
RMG UPDATE NEWS----------PAGE 6
ORDER FORM----------PAGE 7
NOTICE, SUBSCRIPTION RATES--PAGE 8

FROM THE EDITOR'S DESK

It is becomming quite evident that Mackintosh and IBM clone types are advancing so rapidly in new technology that our home eqipment is becomming more like the 2068 in comparison. I have the feeling that I am way back there in comparison with the equipment and programs I observe in PC magazines (I don't read a lot of that stuff, just look at it). I did note that there are associations that collect old model and some not so out of date equipment to be refurbished and distributed to 'have not" children. The idea is simply if a student is not experienced to some extent in using computers, that student will not have a chance in the business and education world. Seems like a good way to dispose of useable but somewhat obsolete equipment. I suspect that these associations are particular about what is donated.

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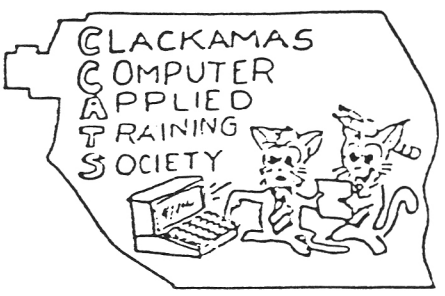


Continued from page 1
I have a catalog from Davis Instruments, 3465 Diablo ave. Hayward, CA 94545 that gives information on 4 different electronic readout weather instruments. These instruments variously give digital and graphic information, such as barametric pressure, inside/outside temperature and humidity, rainfall, wind velocity, wind direction, etc. An accessory available to all 4 models is a Weatherlink interface for IBM and Macintosh computers. This interface is quite sophisticated. It makes possible to generate summaries, analyze trends, create graphs, calculate average weather conditions, and more. Weatherlink stores data until it is transfered to the computer. Storage is on the basis of 1, 5, 15, 30, 60, or 120 minutes and transfers every 1, 5, 15, 30, 60, or 120 days! The data can be transfered to spreadsheet and data base programs. For someone who is into weather records this company just may have the device to fit their wants, particularly with the sophisticated data reporting and storage available via computer. A phone call to 1-800-678-3669 will get you a nice small catalog of their equipment.

COMPUTERS IN SPACE

by: Rod Gowen

No, I am definitely NOT an expert on this subject! But who says I can't make some observations from a distance? I am not going to try to discuss the technical aspects of this subject either. I just wanted to lay out my observations for whatever they may be worth.

As I write this, it has been 25 years since we landed a man on the moon. Can you believe it? And when did most of us start using computers on a regular basis? Wasn't it only 12-14 years ago? And what were these great tools that we had been handed? A 6 inch square plastic box about 1 inch high with 1-2 KILOBYTES OF RAM! Can you remember how excited you were when you opened that box? Within hours I was busily writing math programs (ostensibly for my 2 daughters, but in reality I was doing it so I could call my $250 purchase legitimate) to drill my daughters. But, to get back to the subject at hand--I can remember back to the time of the first lunar landing and the fact that stands out in my mind above all others is the problem that they were having with the ground based computer not having enough memory to complete some of the real-time calculations during the actual landing. They could not process the telemetry that the Lunar Landing Module was sending back as to its relative position to the moon's surface! If you listen to or watch replays of the final minutes of the landing, you will hear Earth control calling out the time "1 minute....30 seconds...etc". This was because of the preceding fact, and, if the lander had not reported being on the surface at 0 minutes, the crew would have had to hit the firing button and the mission would have been aborted. Interesting bit of history, no?

What has this to do with my article? Just this--What a difference there would have been if they had only had 1/100th of the computing power available to NASA today!

I have a cousin on STS-65, the current and 63rd space shuttle mission. His name is Rick Hieb. He is the Payload Commander and Mission Specialist. He was less than 10 years of age when we landed a man on the moon and it excited him to the point where he turned his entire efforts toward eventually getting into the space program. Now he has flown on 3 shuttle missions and will end his career in space (physically, at least) after this mission is completed. I am certainly glad of the immense amount of computing power at NASA's disposal to help make sure that those 7 people are safe and healthy up there.

On Apollo 11, there was a computer. As I recall, it was probably no more powerful than the ZX-81. With the telemetry that the capsule was

capable of, the computer was not included as part of the "information highway" of the day. The crew was expected to do whatever computations that were needed and then they would relay the results to Houston. On STS-65 they have multiple video, voice and computer channels at work almost all of the time. I say almost all of the time because they are out of communications or suffer LOS (Loss Of Signal) twice on each orbit of the Earth. Once for about 8-9 minutes and once for about 3-5 minutes. It seems as if they only have 2 satellites up there that they can use. I have an observation here--why weren't 3 satellites put up at equal points around the Earth and that way the shuttles would never be out of communications with the ground? Maybe it's the cost? It Seems to me that the third one could have been placed there by one of the 63 flights of the shuttle itself!

Back to my topic. On this mission I have noticed that there are several laptop/portable computers on board. The crew is using one to practice landing the shuttle. Another is being used to test the crew for loss of functionality. They use a trackball to try to keep a cross-hair centered on a moving spot plus some other tests. Beyond these I am sure there are a couple more up there. If you look at the lab systems on board this mission, I am sure that there are a lot of pieces of equipment that have built in processors of one sort or another, any one of which would probably be able to do more than the computer on board Apollo 11.

There have been several space probes sent out over the years. All of these are fitted with a computer of one sort or another. Computers are not only in space, they make it possible for man to continue to explore space. If you could pick the one tool that made space Flight possible, it would be computers, without which, they would not be able to do the huge number of calculations needed to even get started. Some of these calculations would take a man on a calculator literally more than his lifetime to complete!

I know that there are those who say that the problems on Earth should be solved before we throw money into space. I can only say to those folks--Look around you! If you can go through one day without making use of some bit of technology that has come to us as a direct or indirect result of the space program, I wish you would let me know! It would be a hard thing to accomplish. Whether it be in our food, our household appliances, our telecommunications and yes, even our computing! Do you think that the computers of today would be where they are if it had not been for the "space race"? The miniaturization of many, many products we use every day is a direct result of the space program. As time goes on, we will benefit more and more from what these dedicated men and women are able to do in space and, hopefully, soon, on the space station. In the field of medicine alone, there may be what most of us would consider "miracles" awaiting future doctors due to medical research in space. I hope that we can look toward the future and see that man needs to work together as a species and not as nations to overcome the problems here on Earth by working together in space.

And what will be the main piece of hardware that will make all of this more and more possible? That's right!

THE COMPUTER!!

LARKEN LINES

by: Rod Gowen

Howdy! It's been awhile since I did one of these columns. I'm just going to pass along a few bits of information that I think will be of use to our readers.

LARKEN TIP---

I have had a few calls concerning the problems some folks are having with their LKDOS system when using more than 40 or 80 tracks on their disks (depending upon whether they have double or quad drives). The problem, as reported to me, is that they seem to have a lot of CRC errors when using the tracks beyond the normal 40 or 80. I can give them a VERY GOOD REASON for the problem! In fact, there are a couple possible reasons. The first and most likely cause is the fact that NOT ALL DISK DRIVES CAN BE FORMATTED BEYOND WHAT THEY ARE RATED AT! This is because the stepper motor, which moves the heads in and out, cannot move past a certain point and on some makes and models of drives, trying to make it format more than 40 or 80 tracks can actually damage the drive by knocking the heads out of alignment. The best bet is to not bother, or, if you must try, try it once and see if you hear an extra loud "klunking" sound at the end of the format. If you do, CEASE AND DESIST AT ONCE! If you have any other questions, please feel free to call or write.

D.U.S. PROBLEM---

Have any of you tried the "THIEF" or "COLNAM" utilities in this package? If so, have you encountered any problems? One of my customers has had a few. He used one or both of these utilities on a disk and then tried to copy the disk. He tried several disk copy utilities and they all gave him CRC ERROrs on tracks 1 and 2. He was about to give up when he decided to try to run the program anyway and it ran just fine! It seem that the addition of bytes to the name by adding attributes (COLNAM) changes the CRC and so the DOS give the error message. It is, however, a false message. As George Chambers said with his MS DOS to LKDOS utility, "Just disregard the CRC errors". I cannot say that this will always be true, so the best bet is to copy the disk and then verify it by testing the programs that you copied.

That's it for now!
See you next time. . .

A NOVEL CARD

Dick Wagner

This short program will print out a novel card you can distribute to your friends, print it out at parties, etc. Readers of past issues of this newsletter will recall that I use Jack Dohany's 2068 USE 9 for screen dumps. This is a part of his GYPSY routines.

The advantage of this program over other screen dumps is that the user has control over how many lines of the screen and which group to print, likewise the number of columns, left margin, the density (number of dots per inch for your printer), vertical size, horizontal size, to name part of the list.

If the reader types out the program, it will be noted that to take advantage of a full screen width, the horizontal size is based on 80 dots per inch (printer) and the vertical size is 60 dots per inch. This is mode 4 for printer density for my Epson printer. Accordingly, the width of the image is 80/60 or 1.33 times more than if mode 0 was used which is 60 dots per inch. The reader can make this change by changing all X axis data by taking .75 times the data, except the starting point PLOT 2,2. Printing in density 0 mode will not look quite as sharp because the dots are further apart horizontally.

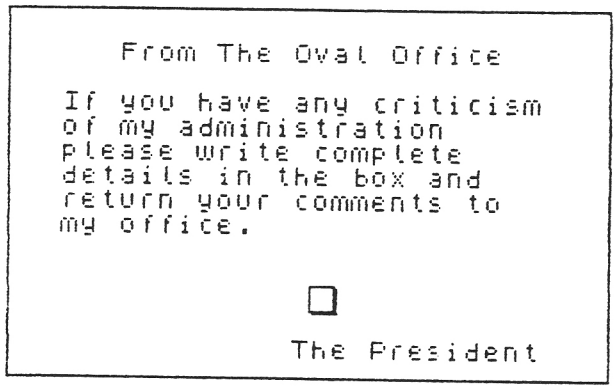
A slight improvement in appearance can be had by change the line spacing of 24/216 to 23 or 22. This will also reduce the vertical dimension of the card. While it is not a part of the program as shown, the vertical lines of the card look better if unidirection is used for printing (printing on left to right only). This eliminates the slight imperfection due to slack in printer head driving mechanism.

Have fun!

P. S.

I showed this card to an accountant friend. She looked it over and commented that the square was awfully small. Thinking more about it, she suggested that one could enlarge it on a copy machine if necessary!

```
  20 REM DICK WAGNER 7/94
  30 REM print with USE9 program
 on large printer, density=0, ho
rizontal size=1, vertical size=1
, for a card 2 x 3 1/2 inches.
  40 PRINT AT 8,6;"From The Oval
 Office"
  50 PRINT AT 10,3;"If you have
any criticism          of my admini
stration               please write
 complete              details in t
he box and             return your
comments to            my office."
  60 PRINT AT 20,15;"The Preside
nt"
 100 PLOT 2,2: DRAW 250,0
 110 PLOT 2,2: DRAW 0,120
 120 PLOT 252,122: DRAW -250,0
 130 PLOT 252,122: DRAW 0,-120
 150 PLOT 127,24: DRAW 10,0
 160 PLOT 127,24: DRAW 0,8
 170 PLOT 137,32: DRAW -10,0
 180 PLOT 137,32: DRAW 0,-8
 190 PLOT 128,23: DRAW 10,0
 200 PLOT 138,23: DRAW 0,8
```



PRINTER READY ?

Dick F. Wagner

There are times that a good screen warning of the Busy/Ready status of a printer is very helpful, particularly if a printer is shared between several computers.

Larry Crawford (UpDate magazine 10/93) has a nice program that includes a clever approach to this problem. In his article on 24-pin bit image graphics he used this line to give a flashing warning on line #0 of the bottom screen.

```
20 IF IN 127 <> 236 THEN
INPUT;: PRINT #0; "PUT PRINTER ON
LINE": PAUSE 2: GO TO 20
```

To explain; IN 127<>236 is simply the address of Port 127 in the Aerco scheme of things. This address is applicable to LKDOS but my Oliger IF uses 239. To check your system with the printer OFF, PRINT IN 127 should give 255 while with the printer on line, PRINT IN 127 will give the address of Port 127 for the readers equipment.

INPUT; clears the bottom two lines of the screen without clearing other lines like CLS will.

PRINT #0; "message": PAUSE 2: GO TO 20 is a nice way to produce a flashing message at the bottom of the screen. If IN 127 is true (not 236) then the message flashes. If IN 127=236 (or your address) then the message is skipped as it is not needed.

RMG UPDATE NEWS FOR SEPTEMBER 1994

VOLUME 6, NUMBER 9

** RMG NEWS **

NOTICE! POLICY CHANGE AT RMG TAKES EFFECT IMMEDIATELY! Effective September 1, 1994, any phone calls for assistance with computer related problems, whether for the TS computers or IBM clones, will be classed "CONSULTATION CALLS" and these will be billed out at $20 per hour starting with the first minute. Mininmum charge will be $1.00. We have been here for all of our customers at no cost to you except for the phone call and have given thousands of hours to further the use of computers. With the expertise that we have gained having cost us a lot over the years, it is time to recoup some of our losses. If we do not do this, we will have to close our phone lines and stop doing "business as usual". We want to continue to help you with any and all problems that we are capable of helping with. If we cannot help, we will refer you to someone who is capable of helping. That referal alone should be worth something. You would not expect to call a doctor or a lawyer to ask them questions without expecting to pay for their time. If all I have that you need is inside my head and you want to make use of the knowledge there, then it will be there for you, as long as I get paid for it. Don't get us wrong, we will still gladly accept calls for price information and phone orders without a charge being made for them. The new policy ONLY applies to "how do I do this" type calls. The only exception to this new policy will be for paid-up members of CCATS user group.

More favorable letters have arrived regarding the book THE BEST OF THE PLOTTER. We are pleased that yuo are happy with our efforts. As of this writing, we have not shipped the disks out yet, but again, we want to make sure that they are as complete and "bug free" as is possible.

As sales have not been what we would like (are they ever?), we are going to start, with this month's issue, to send out an entire set of flyer pages. We will send out CNSN-1 through CNSN-4 this month and will send out pages CNSN-5 through CNSN-8 next month and finish up in October with CNSN-9 through CNSN-12. We will be adding some very special SPECIAL PAGES along the way. This month we are sending a page of items that we found in the storeroom while doing an inventory that you might not have seen before or ever. Take a look.

REMEMBER! WE WILL SUPPORT YOU--AS LONG AS YOU SUPPORT US!

We are also including the TS clearance sheet again. We hope that some of you will pass on these pages to others if you know someone who also uses a TS computer.

KEEP WATCHIN' FOR MORE NEWS! Rod Gowen, Owner, RMG Enterprises
14784 South Quail Grove Circle, Oregon City, OR 97045
503/655-7484 8AM-6PM PT * FAX/VOICEMAIL: 503/655-4116 24 HRS

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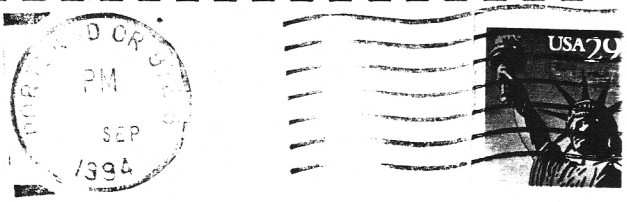

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